

Trend Study 25A-4-99

Study site name: Durfee Homestead .

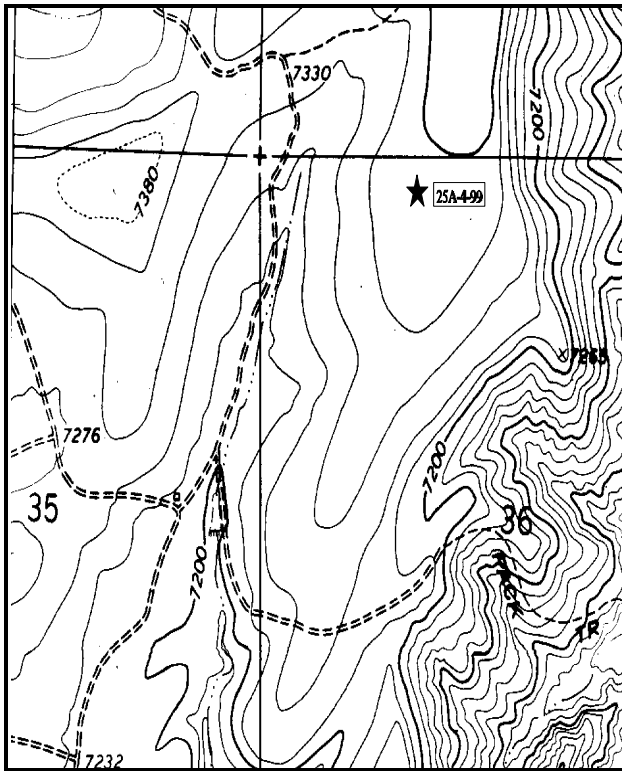
Range type: Chained, Cabled, Seeded P-J.

Compass bearing: frequency baseline 180°M.

Footmark (first frame at) 5 feet, footmarks (frequency belts) line 1 (11 & 95ft), line 2 (34ft), line 3 (59ft), line 4 (71ft).

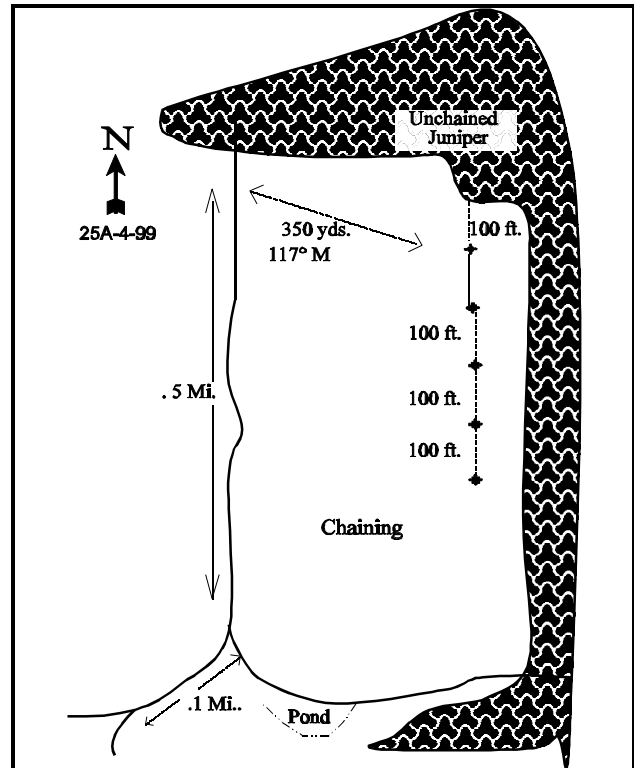
LOCATION DESCRIPTION

From Sigurd, drive east on U-24 to mile marker 21. Turn left (north) on the Sand Ledge Road and drive northeast for 1.6 miles. Turn left at the intersection and proceed north 3.1 miles to an intersection with a trough and pond. Continue 0.1 miles to a road that goes up the draw bottom. Drive up this road for 0.5 miles. Stop at the witness post (1/2" red rebar 2' tall on east side of road) and walk out 350 yards at a bearing of 132 degrees. The baseline starts out in the chaining about 100 feet from the edge of the PJ. The 0-foot baseline stake has a red browse tag #7194 attached.



Map Name: Rex Reservoir, Utah

Township 23S , Range 1W , Section 36



Diagrammatic Sketch

UTM 4290868.154 N, 425072.891 E

DISCUSSION

Trend Study No. 25A-4 (43-4)

The Durfee Homestead trend study lies on BLM administered land, in an area that was chained and seeded in 1983. The transect is on a west aspect with a 10% slope at an elevation of 7,300 feet. Scattered patches of pinyon-juniper were left as protective cover. The transect is located within 100 feet of a dense pinyon-juniper border of unchained, mature trees. Evidence of deer use in the form of pellet groups, hedging on browse species, and antler drops has been noted in the past. The area is also used in the late spring by cattle as part of the Sand Ledge allotment which is administered by the BLM. In 1999, pellet group transect data from the site indicates current use by wildlife and livestock is moderate. Deer use is estimated at 15 days use/acre (38 ddu/ha), elk use at 33 days use/acre (82 edu/ha), and livestock at 16 cow days use/acre (40 cdu/ha).

The soil is a loam to clay loam in texture, and has a slightly alkaline pH (7.5). Organic matter is moderately high at 4.3%. Rock is prevalent on the surface and throughout the profile, resulting in an estimated effective rooting depth of just under 12 inches. Currently ('99) rock and pavement together provide nearly 40% of the surface cover, with bare ground relatively low at about 20%. Litter and slash from the chaining made up 72% of the ground cover in 1985, dropping to only 21% by 1991. It appears that litter was greatly overestimated in 1985. Litter was estimated at just over 18% in 1999 with the new methods, which is close to the 1991 estimate. Erosion is minimal due to the heavily armored surface from pavement and rock.

The chaining was very effective in removing the overstory of juniper and pinyon. However, preferred browse species are almost non-existent following the chaining and seeding. The key browse species are Wyoming big sagebrush and antelope bitterbrush. Together, these species provide less than 5% of the browse cover. Wyoming big sagebrush is currently estimated at only 20 plants/acre, the population being greatly reduced following a fire previous to the 1991 reading. Bitterbrush is currently estimated at 40 plants/acre, down from an estimated 532 plants/acre when the site was first read in 1985. The sagebrush shows light use, while bitterbrush displays heavy use. Both species show good vigor, with no decadent plants being sampled in 1999. The sagebrush population shows the deleterious effects from the fire as well as the prolonged drought throughout much of the 1980's and 1990's. Slenderbush eriogonum was the most abundant browse plant and was lightly utilized in 1985, but this species currently numbers only 60 plants/acre, also with numbers being reduced by fire. These plants are small and do not produce much forage, but currently display moderate use.

The increaser, stickyleaf low rabbitbrush, currently dominates the browse component. This species has increased during each sampling period, especially since the fire, and is currently estimated at 3,660 plant/acre. The population which was all young plants in 1991, now is mostly mature and appears to have a stabile population with low recruitment (5%) and low biotic potential (0%). The average height and crown measurements for low rabbitbrush have more than doubled since 1985. Broom snakeweed is now the second most abundant browse, currently estimated at 1,700 plants/acre. Small clumps of Gambel oak clones occur on the site.

Herbaceous vegetation is diverse, moderately dense, and composed mainly of native species. Several seeded grasses are present, but occur infrequently. These species include: smooth brome, crested wheatgrass, and intermediate wheatgrass. Native grasses are the most abundant with bluebunch wheatgrass, Sandberg bluegrass, mutton bluegrass, and bottlebrush squirreltail all present. Cheatgrass is present at the site and currently occurs in 44% of the quadrats. Forbs are sparse, but fairly diverse and include a few valuable species such as sulfur and redroot eriogonum, tapertip hawksbeard, and hoary aster. The area has been rested from livestock grazing since the chaining.

1985 APPARENT TREND ASSESSMENT

Current soil condition is fairly good and appears stable. Vegetative trend appears upward as the browse recovers from the chaining.

1991 TREND ASSESSMENT

A fire occurred on the area since the 1985 survey. The data showed a loss of almost all the bitterbrush, slenderbush eriogonum, and dwarf rabbitbrush, while low rabbitbrush increased by 63%, and Wyoming big sagebrush decreased by almost 95%. These spectacular changes can all be attributed to the effect of a fire on two species that are especially not tolerant of fire. Almost all grasses have decreased values for both sum of nested and quadrat frequency. Most forbs did have increased sum of nested and quadrat frequency values, but the ones with the highest quadrat frequencies are increasers (fire related), e.g. pale agoseris, thistle, prickly lettuce, and hoary aster. Percent rock cover increased by 68% and percent pavement increased by 56%. Litter cover decreased by 71%. Percent bare ground increased from 9% to 26%. All these findings indicate a downward trend. This trend was surely aggravated by the extended drought, slope, and west aspect.

TREND ASSESSMENT

soil - down

browse - down

herbaceous understory - down

1999 TREND ASSESSMENT

Trend for soil is considered stable to improving. Rock and pavement provide nearly 40% of the surface cover at the present time which armors the surface from heavy erosion. Bare ground and litter cover both decreased in 1999, with vegetative cover increasing. Trend for browse is down. The preferred species, Wyoming big sagebrush and bitterbrush, provide less than 5% of the browse cover, and have not recovered from the fire prior to the 1991 reading. These species have very low densities and recruitment and biotic potential are currently zero. Stickyleaf low rabbitbrush is the dominant species in the chaining. It continues to increase in density and stature. Average height crown measurements have more than doubled since 1985. Broom snakeweed, another increaser, is the second most abundant browse species. Trend for the herbaceous understory is stable. Perennial grasses are the dominate group in the understory providing 35% of the vegetation cover. Sum of nested frequency for perennial grasses and forbs combined increased in 1999.

TREND ASSESSMENT

soil - stable to improving

browse - down

herbaceous understory - stable

HERBACEOUS TRENDS --
Herd unit 25A, Study no: 4

Type	Species	Nested Frequency			Quadrat Frequency			Average Cover % '99
		'85	'91	'99	'85	'91	'99	
G	Agropyron cristatum	_b 22	_b 20	_a 3	9	9	1	.03
G	Agropyron intermedium	_b 46	_a 10	_a 20	23	7	9	.43
G	Agropyron spicatum	_a 68	_a 48	_b 124	28	21	46	3.56
G	Bromus inermis	_a 18	_a 12	_b 80	8	6	28	2.65
G	Bromus tectorum (a)	-	-	110	-	-	44	.90
G	Carex spp.	_b 12	_a -	_{ab} 2	5	-	2	.03
G	Oryzopsis hymenoides	-	-	-	-	-	-	.00
G	Poa fendleriana	58	46	33	28	18	16	.28
G	Poa secunda	_a 9	_a 20	_b 79	3	9	35	1.32
G	Sitanion hystrix	_b 76	_{ab} 42	_a 25	33	22	11	.20
Total for Annual Grasses		0	0	110	0	0	44	0.90
Total for Perennial Grasses		309	198	366	137	92	148	8.53
Total for Grasses		309	198	476	137	92	192	9.44
F	Agoseris glauca	_a 7	_b 29	_{ab} 18	4	15	9	.17
F	Allium spp.	_b 4	_{ab} 5	_a -	3	2	-	-
F	Arabis spp.	-	5	3	-	2	2	.01
F	Astragalus beckwithii	3	8	-	1	4	-	-
F	Astragalus spp.	3	2	3	2	1	1	.00
F	Chaenactis douglasii	4	1	11	3	1	6	.03
F	Cirsium spp.	-	21	40	-	12	18	1.23
F	Collomia linearis (a)	-	-	1	-	-	1	.00
F	Comandra pallida	_{ab} 3	_b 13	_a 1	1	6	1	.00
F	Collinsia parviflora (a)	-	-	9	-	-	3	.01
F	Crepis acuminata	2	4	-	1	2	-	-
F	Cymopterus longipes	3	2	-	2	1	-	-
F	Draba spp. (a)	-	-	6	-	-	3	.04
F	Epilobium brachycarpum (a)	-	-	39	-	-	19	.13
F	Erodium cicutarium (a)	-	3	-	-	1	-	-
F	Erigeron eatonii	-	2	6	-	1	3	.04
F	Erigeron pumilus	_a 8	_{ab} 9	_b 21	4	5	12	.42
F	Eriogonum racemosum	9	15	6	5	8	3	.04
F	Eriogonum umbellatum	_b 19	_a 1	_a 4	10	1	2	.01
F	Gayophytum ramosissimum (a)	-	-	21	-	-	10	.17
F	Lactuca serriola	_a -	_b 64	_a -	-	32	-	-
F	Machaeranthera canescens	_b 50	_b 46	_a 16	20	24	9	.12
F	Microsteris gracilis (a)	-	-	24	-	-	12	.06
F	Petradoria pumila	_a -	_a -	_b 6	-	-	4	.60
F	Phlox longifolia	_a -	_b 35	_a 3	-	16	1	.00

Type	Species	Nested Frequency			Quadrat Frequency			Average Cover % 09
		'85	'91	'99	'85	'91	'99	
F	Polygonum douglasii (a)	-	-	7	-	-	4	.02
F	Ranunculus testiculatus (a)	-	-	8	-	-	3	.01
F	Sphaeralcea coccinea	-	-	3	-	-	2	.03
F	Tragopogon dubius	_a 4	_a 18	_b 61	3	11	29	.67
F	Trifolium spp.	_a 4	_b 21	_a -	2	9	-	-
F	Unknown forb-perennial	-	3	-	-	1	-	-
Total for Annual Forbs		0	3	115	0	1	55	0.46
Total for Perennial Forbs		123	304	202	61	154	102	3.40
Total for Forbs		123	307	317	61	155	157	3.87

Values with different subscript letters are significantly different at $\alpha = 0.10$ (annuals excluded)

BROWSE TRENDS --

Herd unit 25A, Study no: 4

Type	Species	Strip Frequency 09	Average Cover % 09
B	Amelanchier utahensis	0	.00
B	Artemisia tridentata wyomingensis	1	.15
B	Atriplex canescens	0	-
B	Chrysothamnus depressus	3	.03
B	Chrysothamnus nauseosus	3	.18
B	Chrysothamnus viscidiflorus viscidiflorus	55	6.44
B	Echinocereus triglochidatus	0	-
B	Eriogonum microthecum	2	-
B	Gutierrezia sarothrae	33	1.37
B	Pinus edulis	0	-
B	Purshia tridentata	2	.30
B	Quercus gambelii	1	2.03
B	Sambucus cerulea	1	.38
B	Tetradymia canescens	4	.03
Total for Browse		105	10.92

CANOPY COVER --

Herd unit 25A, Study no: 4

Species	Percent Cover 09
Quercus gambelii	1

BASIC COVER --

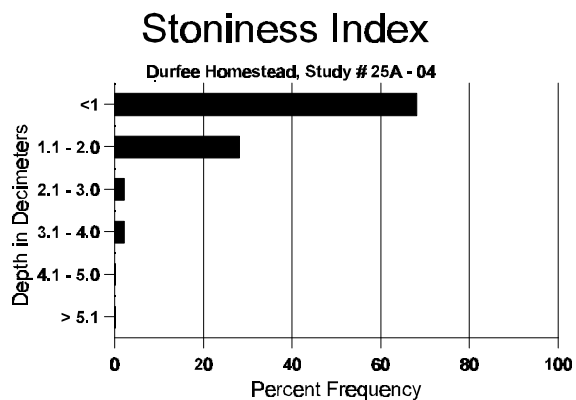
Herd unit 25A, Study no: 4

Cover Type	Nested Frequency 09	Average Cover %		
		'85	'91	'99
Vegetation	313	2.75	6.00	23.77
Rock	315	12.25	38.00	22.90
Pavement	297	3.75	9.00	15.65
Litter	345	72.00	21.00	18.27
Cryptogams	6	.25	0	.01
Bare Ground	297	9.00	26.00	19.98

SOIL ANALYSIS DATA --

Herd Unit 25A, Study # 04, Study Name: Durfee Homestead

Effective rooting depth (inches)	Temp °F (depth)	pH	%sand	%silt	%clay	%OM	PPM P	PPM K	dS/m
11.9	58.8 (12.8)	7.5	34.0	38.7	27.3	4.3	38.1	214.4	0.7



PELLET GROUP FREQUENCY --

Herd unit 25A, Study no: 4

Type	Quadrat Frequency 09	Pellet Transect Days Use/Acre (ha) 09
Rabbit	8	n/a
Elk	9	33(82)
Deer	7	15(37)
Cattle	9	16(40)

BROWSE CHARACTERISTICS --

Herd unit 25A, Study no: 4

Field Unit 25A, Study No. 4																			
A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total	
		1	2	3	4	5	6	7	8	9	1	2	3	4					
Amelanchier utahensis																			
S	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	1	-	-	-	-	-	1	-	-	-	20			1	
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0	20	28	0	
% Plants Showing		<u>Moderate Use</u>				<u>Heavy Use</u>				<u>Poor Vigor</u>				<u>%Change</u>					
'85		00%				00%				00%									
'91		00%				00%				00%									
'99		00%				00%				00%									
Total Plants/Acre (excluding Dead & Seedlings)														'85	0	Dec:	-		
														'91	0		-		
														'99	0		-		
Artemisia tridentata wyomingensis																			
S	85	2	-	-	-	-	-	-	-	-	1	1	-	-	133			2	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
Y	85	1	-	-	-	-	-	-	-	-	1	-	-	-	66			1	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
M	85	2	2	-	-	-	-	-	-	-	4	-	-	-	266	13	14	4	
	91	1	-	-	-	-	-	-	-	-	1	-	-	-	66	11	7	1	
	99	1	-	-	-	-	-	-	-	-	1	-	-	-	20	35	53	1	
D	85	6	6	1	-	-	-	-	-	-	8	-	5	-	866			13	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
X	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	20			1	
% Plants Showing		<u>Moderate Use</u>				<u>Heavy Use</u>				<u>Poor Vigor</u>				<u>%Change</u>					
'85		44%				06%				28%				-94%					
'91		00%				00%				00%				-70%					
'99		00%				00%				00%									
Total Plants/Acre (excluding Dead & Seedlings)														'85	1198	Dec:	72%		
														'91	66		0%		
														'99	20		0%		

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Atriplex canescens																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0	19	27	0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85	00%			00%			00%									
		'91	00%			00%			00%									
		'99	00%			00%			00%									
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	0		-			
Chrysothamnus depressus																		
S	85	1	-	-	-	-	-	-	-	-	1	-	-	-	66			1
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
Y	85	2	-	-	-	-	-	-	-	-	2	-	-	-	133			2
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
M	85	10	-	-	-	-	-	-	-	-	10	-	-	-	666	5	8	10
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	5	2	-	-	-	-	-	-	-	7	-	-	-	140	5	7	7
D	85	2	-	-	-	-	-	-	-	-	2	-	-	-	133			2
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0			0
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85	00%			00%			00%									
		'91	00%			00%			00%									
		'99	29%			00%			00%									
Total Plants/Acre (excluding Dead & Seedlings)												'85	932	Dec:	14%			
												'91	0		0%			
												'99	140		0%			
Chrysothamnus nauseosus																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	3	-	-	-	-	-	-	-	-	3	-	-	-	60	22	32	3
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85	00%			00%			00%									
		'91	00%			00%			00%									
		'99	00%			00%			00%									
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	60		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Chrysothamnus viscidiflorus viscidiflorus																		
S	85	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	91	3	-	-	-	-	-	-	-	-	3	-	-	-	200		3	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
Y	85	4	-	-	-	-	-	-	-	-	4	-	-	-	266		4	
	91	29	2	3	-	-	-	1	-	-	35	-	-	-	2333		35	
	99	10	-	-	-	-	-	-	-	-	9	-	1	-	200		10	
M	85	9	-	-	-	-	-	-	-	-	9	-	-	-	600	6	7	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	99	142	-	-	-	-	-	-	-	-	142	-	-	-	2840	15	22	
D	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	25	2	-	4	-	-	-	-	-	18	-	-	13	620		31	
X	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	40		2	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		00%			00%			00%			+63%							
'91		06%			09%			00%			+36%							
'99		01%			00%			08%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	866	Dec:	0%			
												'91	2333		0%			
												'99	3660		17%			
Echinocereus triglochidatus																		
Y	85	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		00%			00%			00%										
'91		00%			00%			00%										
'99		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	66	Dec:	-			
												'91	0		-			
												'99	0		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Eriogonum microthecum																		
Y	85	9	-	-	-	-	-	-	-	-	9	-	-	-	600		9	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	85	13	2	1	-	-	-	-	-	-	14	2	-	-	1066	7	7	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	99	-	3	-	-	-	-	-	-	-	3	-	-	-	60	3	13	
D	85	1	-	-	-	-	-	-	-	-	1	-	-	-	66		1	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		08%			04%			00%										
'91		00%			00%			00%										
'99		100%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	1732	Dec:	4%			
												'91	0		0%			
												'99	60		0%			
Gutierrezia sarothrae																		
S	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
Y	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	4	-	-	-	-	1	-	-	-	5	-	-	-	100		5	
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	99	80	-	-	-	-	-	-	-	-	80	-	-	-	1600	8	11	
X	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	20		1	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		00%			00%			00%										
'91		00%			00%			00%										
'99		00%			01%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	1700		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Pinus edulis																		
Y	85	1	-	-	-	-	-	-	-	-	-	-	1	-	66		1	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
D	85	1	-	-	-	-	-	-	-	-	-	-	1	-	66		1	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		00%			00%			100%										
'91		00%			00%			00%										
'99		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	132	Dec:	50%			
												'91	0		0%			
												'99	0		0%			
Purshia tridentata																		
Y	85	1	1	-	-	-	-	-	-	-	2	-	-	-	133		2	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
M	85	2	2	1	-	-	-	-	-	-	5	-	-	-	333	15	25	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	99	-	-	1	-	-	1	-	-	-	2	-	-	-	40	20	48	
D	85	-	1	-	-	-	-	-	-	-	1	-	-	-	66		1	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
	99	-	-	-	-	-	-	-	-	-	-	-	-	-	0		0	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		50%			13%			00%										
'91		00%			00%			00%										
'99		00%			100%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	532	Dec:	12%			
												'91	0		0%			
												'99	40		0%			
Quercus gambelii																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	
	99	13	-	-	-	-	-	-	-	-	13	-	-	-	260	69	69	
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
'85		00%			00%			00%										
'91		00%			00%			00%										
'99		00%			00%			00%										
Total Plants/Acre (excluding Dead & Seedlings)												'85	0	Dec:	-			
												'91	0		-			
												'99	260		-			

A G E	Y R	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Sambucus cerulea																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	1	-	-	-	-	-	-	-	-	-	1	-	-	20	43	52	1
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			00%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85		0	Dec:		-	
												'91		0			-	
												'99		20			-	
Tetradymia canescens																		
M	85	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	91	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	0
	99	4	1	-	-	-	-	-	-	-	-	5	-	-	100	6	14	5
% Plants Showing		<u>Moderate Use</u>			<u>Heavy Use</u>			<u>Poor Vigor</u>			<u>%Change</u>							
		'85			00%			00%			00%							
		'91			00%			00%			00%							
		'99			20%			00%			00%							
Total Plants/Acre (excluding Dead & Seedlings)												'85		0	Dec:		-	
												'91		0			-	
												'99		100			-	